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| 10/806,032 | 03/22/2004 | Charles H. Bianchi | 100.760US03 | 1007 |
| 34206 7590 09/18/2008 FOGG & POWERS LLC 10 SOUTH FIFTH STREET SUITE 1000 MINNEAPOLIS, MN 55402 | | | | |
| EXAMINER SATKIEWICZ, THOMAS E | | | | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docketing@fogglaw.com

Office Action Summary

Application No.

10/806,032

Applicant(s)

BIANCHI ET AL.

Examiner

Thomas E. Satkiewicz

Art Unit

2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SI/02)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

Applicant's amendment filed 06/24/2008 has been entered. Claims 1, 3, 5, and 12-13 have been amended. No Claims have been cancelled. No Claims have been added. Claims 1-13 are still pending in this application, with claims 1 and 12-13 being Independent claims.

Drawings

1. The drawings were received on 06/24/2008. These drawings are Fig 5 and 6.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 1-6 and 8-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. (US 6,535,493) (Lee) and in view of Skinner, Sr. (US 5,467,384) (Skinner).

With regards to Claim 1, Lee teaches an apparatus (Apparatus; Abstract) for communicating wireless local area network (WLAN) signals with an internetworking device (Router, 114; Fig 1; Column 4, Line 34) using a transport network (LAN, 110; Fig 1; Column 4, Line 17), the apparatus (Apparatus; Abstract) comprising: an access point (Access Points, 102 and 104; Fig 1; Column 4, Lines 16-17) coupled to the transport network (LAN, 110; Fig 1; Column 4, Lines 17) for communicating with an

internetworking device (Router, 114; Fig 1; Column 4, Line 34), the access point (Access Points, 102 and 104; Fig 1; Column 4, Lines 16-17) further comprising: a wireless local area network (WLAN) access point (Access Points, 102 and 104; Fig 1; Column 4, Lines 16-17), for receiving wireless local area network signals from wireless computing equipment (Mobile Units, 100; Fig 1; Column 4, Lines 15) and converting (Between the Wired and Wireless; Column 4, Line 20) such signals to local area network compatible signals; and an access point remote converter (Router, 114; Fig 1; Column 4, Line 34), for receiving the local area network compatible signals (LAN, 110; Fig 1; Column 4, Line 17) from the wireless local area network access point (Access Points, 102 and 104; Fig 1; Column 4, Lines 16-17) and converting (Between the Wired and Wireless; Column 4, Line 20) such signals to transport modulated format signals suitable for transmission over the transport network (LAN, 110; Fig 1; Column 4, Lines 17).

However, Lee fails to teach the transport network further providing a power signal to power at least some components of the access point.

However, Skinner does teach providing a power signal (Power Supply, 32; Fig 4; Column 5, Line 28) to power (Power; Column 6, Line 29) at least some components of the access point (Cable Network Unit, 47; Fig 4; Column 6, Line 19).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to combine Lee with Skinner, because at some point one Lee's Access Points would be placed in an area where power would be hard to supply, so that Skinner would solve that problem.

With regards to Claim 2, Lee teaches an apparatus, wherein: the transport network (LAN, 110; Fig 1; Column 4, Line 17) is a twisted pair telephone cabling (Wired; Column 4, Line 20) and the access point remote converter (Router, 114; Fig 1; Column 4, Line 34) converts the local area network signals to a Digital Subscriber Line (xDSL) format (Between the Wired and Wireless; Column 4, Line 20).

With regards to Claim 3, Lee in view of Skinner teaches an apparatus, wherein the access point [Cable Network Unit, 47; Fig 4; Column 6, Line 19 (Skinner)] further comprises a power supply [Power Supply, 32; Fig 4; Column 5, Line 28 (Skinner)] connected to the twisted pair cabling [Copper Wire, 22; Fig 4; Column 6, Line 33 (Skinner)] in order to be energized by the power signal [Power; Column 6, Line 24 (Skinner)] from the transport network to supply power [Power Supply, 32; Fig 4; Column 5, Line 28 (Skinner)] to at least some components of the access point [Cable Network Unit, 47; Fig 4; Column 6, Line 19 (Skinner)].

With regards to Claim 4, Lee teaches an apparatus, wherein: the transport network (LAN, 110; Fig 1; Column 4, Line 17) is an optical fiber network (Wired; Column 4, Line 20) and the access point remote converter (Router, 114; Fig 1; Column 4, Line 34) converts the local area network signals to an optical wavelength compatible (Between the Wired and Wireless; Column 4, Line 20) with the fiber network (Wired; Column 4, Line 20).

With regards to Claim 5, Lee in view of Skinner teaches an apparatus, wherein the access point [Optical Network Unit, 15; Fig 2; Column 4, Line 16 (Skinner)] further comprises a power supply [Power Supply, 32; Fig 2; Column 5, Line 27 (Skinner)]

connected to the optical fiber network [Fiber Optic Cable, 14 Fig 2; Column 4, Line 13 (Skinner)] in order to be energized by the power signal [Power; Column 4, Line 26 (Skinner)] from the optical fiber network [Fiber Optic Cable, 14 Fig 2; Column 4, Line 13 (Skinner)] to supply power to at least some components of the access point [Optical Network Unit, 15; Fig 2; Column 4, Line 16 (Skinner)].

With regards to Claim 6, Lee in view of Skinner teaches an apparatus, further comprising: a power inserter [Power Inserter, 38; Fig 3; column 5, Line 37 (Skinner)] that inserts the power signal onto the transport network [Coax Cables, 24; Column 5, Line 37 (Skinner)].

With regards to Claim 8, Lee teaches an apparatus, wherein the transport network (LAN, 110; Fig 1; Column 4, Line 17) is an analog signal transport medium (Wired; Column 4, Line 20).

With regards to Claim 9, Lee teaches an apparatus, further comprising: a head end access point (Access Points, 102 and 104; Fig 1; Column 4, Lines 42-43), comprising: a head end remote bridge (Router, 114; Fig 1; Column 4, Line 34), connected to receive the transport modulated format signals from the transport network (LAN, 110; Fig 1; Column 4, Line 17), and to convert such signals to data network compatible signals (Transmit the LAN Traffic; Column 4, Lines 20).

With regards to Claim 10, Lee teaches an apparatus, wherein the access point (Access Points, 102 and 104; Fig 1; Column 4, Lines 42-43) and head end access point (Access Points, 102 and 104; Fig 1; Column 4, Lines 42-43) use a cable modem

(Router, 114; Fig 1; Column 4, Line 34) to perform the transport modulation (Transmit the LAN Traffic; Column 4, Lines 20), conversion, and bridging functions.

With regards to Claim 11, Lee teaches an apparatus, additionally comprising a local area network hub (Access Points, 102 and 104; Fig 1; Column 4, Lines 42-43), for receiving the data network compatible signals (Transmit the LAN Traffic; Column 4, Lines 20) from the head end remote bridge (Router, 114; Fig 1; Column 4, Line 34), and forwarding such signals to the internetworking device (Router, 114; Fig 1; Column 4, Line 34).

With regards to Claim 12, Lee teaches a distribution network (Internet, 120; Fig 1; Column 4, Line 36) for coupling wireless local area network signals (Wireless Portions of the Network; column 4, Lines 20-21) between an internetworking device (Router, 114; Fig 1; Column 4, Line 34) and a plurality of remotely located access points (Access Points, 102 and 104; Fig 1; Column 4, Lines 42-43), to provide wireless local area network service within a geographic coverage area composed of microcells (Cell; Column 4, Line 23), the distribution network (Internet, 120; Fig 1; Column 4, Line 36) making use of available transport cabling (Wired; Column 4, Line 20), comprising: a plurality of access points (Access Points, 102 and 104; Fig 1; Column 4, Lines 42-43), each deployed with a respective one of the microcells (Cell; Column 4, Line 23) and furthermore, each access point (Access Points, 102 and 104; Fig 1; Column 4, Lines 42-43) being coupled to available transport cabling (Wired; Column 4, Line 20) for communicating with an internetworking device (Router, 114; Fig 1; Column 4, Line 34), the access points (Access Points, 102 and 104; Fig 1; Column 4, Lines 42-43) each

further comprising: a wireless local area network access point (Access Points, 102 and 104; Fig 1; Column 4, Lines 42-43), for receiving wireless local area network signals (Wireless Portions of the Network; column 4, Lines 20-21) from computing equipment (Mobile Units, 100; Fig 1; Column 4, Line 15) located within the respective microcell (Cell; Column 4, Line 23), and converting such signals to local area network compatible signals (Transmit the LAN Traffic; Column 4, Lines 20); and an access point remote converter (Router, 114; Fig 1; Column 4, Line 34), for receiving the local area network compatible signals (Transmit the LAN Traffic; Column 4, Lines 20) from the wireless local area network access point (Access Points, 102 and 104; Fig 1; Column 4, Lines 42-43) and converting such signals to transport modulated format signals (Transmit the LAN Traffic; Column 4, Lines 20) suitable for transmission over the available transport cabling (Wired; Column 4, Line 20).

However, Lee fails to teach the transport network further providing a power signal to power at least some components of the access point.

However, Skinner does teach providing a power signal (Power Supply, 32; Fig 4; Column 5, Line 28) to power (Power; Column 6, Line 29) at least some components of the access point (Cable Network Unit, 47; Fig 4; Column 6, Line 19).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to combine Lee with Skinner, because at some point one Lee's Access Points would be placed in an area where power would be hard to supply, so that Skinner would solve that problem.

With regards to Claim 13, Lee teaches a distribution network (Internet, 120; Fig 1; Column 4, Line 36) for coupling wireless local area network signals (Wireless Portions of the Network; column 4, Lines 20-21) between an internetworking device (Router, 114; Fig 1; Column 4, Line 34) and a plurality of remotely located access points (Access Points, 102 and 104; Fig 1; Column 4, Lines 42-43), to provide wireless local area network service within a geographic coverage area (Cell; Column 4, Line 23) composed of microcells (Cell; Column 4, Line 23), the distribution network (Internet, 120; Fig 1; Column 4, Line 36) making use of available transport cabling (Wired; Column 4, Line 20), comprising: a plurality of access points (Access Points, 102 and 104; Fig 1; Column 4, Lines 42-43), each deployed with a respective one of the microcells (Cell; Column 4, Line 23) and furthermore, each access point (Access Points, 102 and 104; Fig 1; Column 4, Lines 42-43) being coupled to available transport cabling (Wired; Column 4, Line 20) for communicating with an internetworking device (Router, 114; Fig 1; Column 4, Line 34), the access points (Access Points, 102 and 104; Fig 1; Column 4, Lines 42-43) each further comprising: a wireless local area network access point (Access Points, 102 and 104; Fig 1; Column 4, Lines 42-43), for receiving wireless local area network signals (Wireless Portions of the Network; column 4, Lines 20-21) from computing equipment (Mobile Units, 100; Fig 1; Column 4, Line 15) located within the respective microcell (Cell; Column 4, Line 23), and converting such signals to local area network compatible signals (Transmit the LAN Traffic; Column 4, Lines 20); and an access point remote converter (Access Points, 102 and 104; Fig 1; Column 4, Lines 42-43), for receiving the local area network compatible signals (Transmit the LAN Traffic;

Column 4, Lines 20) from the wireless local area network access point (Access Points, 102 and 104; Fig 1; Column 4, Lines 42-43) and converting such signals to transport modulated format signals (Transmit the LAN Traffic; Column 4, Lines 20) suitable for transmission over the available transport cabling (Column 7, Lines 21-41); and a head end access point (Access Points, 102 and 104; Fig 1; Column 4, Lines 42-43), comprising: a head end remote bridge (Router, 114; Fig 1; Column 4, Line 34), connected to receive the transport modulated format signals (Transmit the LAN Traffic; Column 4, Lines 20) from the transport cabling (Wired; Column 4, Line 20), and to convert such signals to local area network compatible signals (Transmit the LAN Traffic; Column 4, Lines 20).

However, Lee fails to teach the transport network further providing a power signal to power at least some components of the access point.

However, Skinner does teach providing a power signal (Power Supply, 32; Fig 4; Column 5, Line 28) to power (Power; Column 6, Line 29) at least some components of the access point (Cable Network Unit, 47; Fig 4; Column 6, Line 19).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to combine Lee with Skinner, because at some point one Lee's Access Points would be placed in an area where power would be hard to supply, so that Skinner would solve that problem.

4. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lee et al. (US 6,535,493) (Lee) in view of Skinner Sr. (US 5,467,384) (Skinner), and further in view of Thornton et al. (US 6,426,970) (Thornton).

With regards to Claim 7, Lee in view Skinner, and further in view of Thornton teaches an apparatus, further comprising: a signal coupler [Bi-Directional Signal Coupler, 130; Fig 4; column 5, Lines 36 (Thornton)] that couples the power signal [Signal B; Column 5, Line 61 (Thornton)] from the transport network [Communication Medium, 134; Fig 4; Column 5, Line 38 (Thornton)] to the access point [Output Port; Column 5, Line 61 (Thornton)].

Therefore, it would have been obvious to one of ordinary skill in the art at the time the applicant's invention was made to combine Lee and Skinner with Thornton, because at some point one Lee's Access Points would be placed in an area where power would be hard to supply, and Skinner would bring the power out to the Access Point and Thornton would extract the power from the transport network and into the access point.

Response to Arguments

5. Applicant's arguments with respect to claims 1-13 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas E. Satkiewicz whose telephone number is (571)

270-1948. The examiner can normally be reached on Monday to Thursday 6:30AM to 3:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad Matar can be reached on (571) 272-7488. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thomas E Satkiewicz/
Examiner, Art Unit 2614

/Ahmad F. Matar/
Supervisory Patent Examiner, Art Unit 2614